

Atty. Dkt. No. 1-002 AMENDMENT

Appl. No. 09/513,656
Amdt. dated October 28, 2005
Reply to Office Action of September 9, 2005

REMARKS

Claims 1-25 and 27-28 are pending and stand rejected; with Claims 1-2, 11-12, 15-17, 21 and 23-25 rejected under 35 U.S.C. § 102 novelty, and Claims 3-10, 13-14, 18-20, 22 and 27-28 under 35 U.S.C. § 103 for obviousness. The prior rejection under 35 U.S.C. § 112 of claims 7-9 and 13 has been traversed, and the prior rejection under 35 U.S.C. § 101 of claims 26 and 29 relating to subject matter. Claims 7-9, 13 and 27 also has been traversed as per the examiner's official action. Formal Drawings submitted March 21, 2005 on Sheets 1-7 were accepted. Claims 16 and 23 are hereby amended to correct for typographical error formalities. New claims 38-47 are added by the instant amendment. The examiner is requested to please acknowledge the change the attorney docket number to 1-002 submitted with the powers of attorney mailed March 16, 2005.

As described, Applicants' device advantageously has two parts: (1) a cartridge that contains all of the electronics (i.e., silicon) of an amusement system, while its (2) player is simply electrical in nature, i.e., switches, batteries, speaker, etc. The system architecture as claimed, "where the cartridge includes memory, a processing system, programming executable by the processing system to produce electrical signals representative of sound from the data representative of sound, and at least one connector configured to releasably connect the cartridge to a player" and with the "player to receive electrical signals representative of sound from the cartridge and to produce sound ..." where the player includes controls configured to trigger the cartridge to produce electrical signals representative of sound and to transmit those signals to the transducer to produce sound vibrations, but where the player is devoid of a processor to process the electrical signals received from the cartridge" (emphasis added) is totally unlike any system produced to date and neither anticipated nor suggested by the prior art.

Claims 1-2, 11-12, 15-17, 21 and 23-25 rejected under 35 U.S.C. § 102 novelty, and Claims 3, 5-6, 13-14 and Independent Claim 27 stand rejected under 35 U.S.C. § 103

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for obviousness over the single newly cited reference, U.S. Patent No. 6,327,633 to Chawla et al. for "Solid state audio system" issued December 4, 2001, which relates to a system that provides audio signals when played in a standard audio-cassette player used in automobiles, home stereo systems etc. Chawla teaches a casing provided of the same size and shape of a standard audio-cassette tape including an audio tape, a sensing mechanism for signals indicating a speed and a direction of travel of the audio tape, a processor coupled to the sensing mechanism and a memory card coupled to the processor for storing digitized audio information. An audio transfer system is coupled to the processor and magnetically coupled to the audio tape for transferring audio signals onto the tape corresponding to the digitized audio information. As described a memory card also may be included for stored digitized audio information with the processor coupled to the memory card and a D/A converter that outputs an analog audio signal. A plurality of control inputs are selectable for several states such that selected portions of the digitized audio information processed with the standard audio-cassette player facilitate output to the D/A converter in response to the one or more of these several states.

Chawla utilizes a standard Audio-cassette player, and provides a casing of the same size and shape as that of a standard audio-cassette tape housing including audio tape therein. The standard compact audio-cassette player and the compact audio-cassette tape housing was introduced more than 40 years ago (Philips, 1963) and is ubiquitous and known in the art, which raises at least two important issues discussed further below, (1) no known audio-cassette players provide power to such tape housings, nor has there been a reference shown for a motivation to do so; and (2) Chawla discussion of such standard audio-cassette players is limited because of its focus on the cassette casing itself as a possible audio system without the need to discuss the components inherent to audio-cassette players generally. It is well established and inherent that such audio-cassette players require capstan drive servo processing. Capstans are found in the mechanisms of all audio-cassette players. Audio-cassette players use the fluctuating signal by moving a strip of magnetic tape across an electromagnetic tape head. The capstan is used to control or apply linear force to the tape causing it to be drawn off the spool, past the tape head,

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and onto the take-up spool at a precise, constant speed to avoid audible flutter, etc. Audio-cassette players contemplated for use by Chawla, and inherent if not explicitly described, are not simply electrical in nature, i.e., switches, batteries, speaker, etc. Further, Chawla describes a plurality of control inputs (stop, play, ff, rev at control inputs 450 via a Controller 460 and line 462 on the standard audio-cassette player) to the cartridge (at 180 via line 462) being selectable for several states such that selected portions of the digitized audio information via processing with the standard audio-cassette player facilitate output to the D/A converter in response to the one or more of these several states. Although Chawla does not show or describe a capstan, it would assuredly be coupled with its Controller 460 and as such functionally provide a processor for processing in the Chawla player as specifically distinguished in Applicants' Claims as discussed herein. Accordingly, in view of capstan processors or other processing employed with the Chawla Controller 460 and the like, it is well established that Audio-cassette players are not devoid of a processor to process the electrical signals received from the cartridge, as required by Applicants Independent Claims 1 and 27.

In view of the forgoing, Independent Claims 1 and 27 should be allowed, and pending Claims 2-25 and 28 depending from Independent Claims 1 and 27 should also be allowed.

In addition, at least Original Dependent Claim 6 and New Claims 38-47 are limited to portable players; and Claims 5, 7-10 and 14 are as well limited to small portable cartridges. Chawla on the other hand contemplates external power e.g. with an automobile Audio-cassette player with its power source as the cigarette lighter outlet in the automobile. Applicants' stand alone architecture is not comparable. Only through hindsight using knowledge solely from Applicant's disclosure could one contemplate obviousness of Applicants' inventions as claimed. Accordingly at least Original Dependent Claim 6 and New Claims 38-47 should also be allowed in view of the forgoing.

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In further consideration of Applicant's claimed inventions, Chawla does not separate the electrical from electronic components as described and claimed by Applicants. As described in the specification Applicants' novel system architecture provides key benefits over the prior art, including reducing the number contacts required to make connections, reducing the data rate over these connections as much lower, meaning simpler interconnections, minimizing the size and number of circuit boards required thus making equivalent systems smaller and less complex. Applicants' player includes a transducer to produce the sound vibrations, a battery or other power supply, and controls to trigger the cartridge to produce and transmit electrical signals representative of sound. The player includes only those components necessary to produce sound vibrations and/or images from the signals received from a cartridge, a battery, and associated, associated input or output components. The player of the present described embodiment does not include any processing. Applicants' player includes only electrical components such as switches, a speaker and a battery, while the cartridge includes electronic components such as the microprocessor, analog-to-digital converter and memory.

The Examiner also rejects Claim 3 and Independent Claim 27 under 35 U.S.C. § 103 for obviousness over the single newly cited Chawla patent reference, stating that Chawla teaches that the cartridge can accept any source of D.C. power (citing Chawla at Col. 3, lines 7-21).

Chawla at Col. 3, lines 7-21, state as follows:

"System 100 includes one or more power sources. One such power source includes a battery 150 for providing electrical power. Another power source includes a connector 152 for receiving a cord 154 and connector 156 which plugs into, for example, a cigarette lighter outlet in an automobile. Both connector 152 and battery 150 are connected to provide electrical power to all components of system 100. Thus, DC power can be provided from a cigarette lighter outlet (or other D.C. power source) to system 100 via connector 152. Connector 152 can be provided on the back side 103 so that when

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system 100 is inserted into an automobile cassette player, the power cord 154 may extend out of an entry door of the automobile cassette player. Alternatively, a DC power connector 160 is provided on the front side 101 for receiving a DC power supply.”

Chawla describes a battery 150, connector 152 and a cigarette lighter connector 156, and states that D.C. power can be provided from another D.C. power source to system 100 via the connector 152, describes a power cord 154 that may extend out of an entry door of a cassette player, or a connector 160 provided on the front side 101 for receiving a D.C. power supply, but nowhere suggests that power could be provided by the cassette player itself. No known audio-cassette players provide power to such tape housings, nor has there been a reference shown for a motivation to do so. The prior art fails to support an assertion that it would be obvious to have the power supply of an audio-cassette player supply power to the cartridge to reduce the number of batteries or power outlets needed. In view of audio-cassette players being known and having been sold for as many years, it should be incumbent to provide a prior art reference that can be reviewed for its motivation and structure. The Examiner is respectfully requested to provide such a reference for review regarding the obviousness rejection. The absence of such prior art evidences the non-obviousness of Applicants' claimed invention. Accordingly the Claim 3 and Independent Claim 27 rejections under 35 U.S.C. § 103 for obviousness over the single newly cited Chawla patent also cannot stand.

Applicants' system is an alternative to existing cassette players, compact disc players, and other such items in that it allows a user to conveniently produce sound, using a cartridge that stores, processes, and also controls data representative of sound and/or images,etc. The player provides the interface, annunciation and transduction of sound and/or images. The cartridge includes a computer integrated circuit or chip that stores and transmits signals from which sound and/or images may be produced. For example, the cartridge includes memory, data stored in the memory, a processing system, programming executable by the processing system, and at least one connector to releasably connect the cartridge to the player. The cartridge may include a single chip or integrated circuit, with the memory, processing, and other functions all performed by the

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chip mounted on a printed circuit board. Further regarding Claims 3-10, 13-14, 18-20, 22 and 27-28 rejected under 35 U.S.C. § 103 for obviousness, neither Chawla, Douglas, Maskovich, Bell, Scott, Lebensfeld, May nor any other prior art of record individually or in proper combination suggests such separation of electrical from electronic, in which control portion (configured with battery and speaker) to trigger via connector are separated out from the processor/ memory storage/ cartridge portion (to combine to produce electrical signals representative of sound and to transmit those signals to the transducer to produce sound). The prior art systems quite to the contrary use a separate memory cards or cartridges are inspired by the motifs of the conventional cassette/ CD player architectures or use cradle adapters that recharge and connect the system to host data sources similar to a Palm Pilot/ PDA – systems with user controls in and of themselves. No known audio-cassette players provide power to such tape housings, nor has there been a reference shown for a motivation to do so; and it is inherent that audio-cassette players require capstan drive processing and thus are not devoid of a processor to process the electrical signals received from the cartridge.

In view of the foregoing, Applicant has placed the case in condition for reconsideration and respectfully requests allowance of pending claims 1-25, 27-28 and New Claims 38-47.

If the Examiner would like to discuss Applicant's invention prior to issuing an action, the Examiner should feel free to contact the undersigned attorney.

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Respectfully submitted,



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